

**REMARKS**

Claim 18 is added to the instant application. Claim 18 defines the same patentable invention as Claim 17 of U.S. Patent No. 5,618,699.

New Claim 18 is supported in a number of different passages in the subject application. Only representative passages are cited below. Additional passages could have been listed, but have not been included for the sake of brevity.

**PATENT CLAIM 17 AND APPLICANT'S CLAIM 18**

Patent Claim 17 is directed to a process for systemically expressing a fusion protein of a coat protein of a Tobamovirus and a foreign protein in a plant. Applicants' Claim 18 corresponds to patent Claim 17 and is copied verbatim from the patent. Claim 18 is supported in Applicants' specification as follows:

**Patent Claim 17**

A process for systemically expressing a fusion protein

of a coat protein of a Tobamovirus and a foreign protein in a plant.

**Applicants' Disclosure**

The invention relates to the use of tobamovirus vectors to express fusion proteins. (page 1, lines 10-11).

The recombinant plant viruses of the invention provide for systemic expression of the fusion protein, by systemically infecting cells in a plant. (page 4, line 37 through page 5, line 4)

The present invention provides recombinant plant of viruses that express fusion proteins that are formed by fusions between a plant viral coat protein and protein of interest. (page 3, lines 8-10)

The protein of interest portion of the fusion protein for expression may consist of a peptide of virtually any amino acid sequence. (page 5, lines 17-19)

Production of a Malarial B-cell epitope genetically fused to the surface loop region of the TMVCP. (Example 2)

Production of a Malarial B-cell epitope genetically fused to the C terminus of the TMVCP. (Example 3)

Production of a Malarial CTL epitope genetically fused to the C terminus of the TMVCP. (Example 4)

comprising the steps of:  
(a) inoculating a plant with a plant virus vector,

By infecting plant cells with the recombinant plant invention, relatively large quantities of the protein of interest may be produced in the form of a fusion protein. (page 3, lines 10-14)

such that upon expression of the vector in a plant, the coat protein of a Tobamovirus and the fusion protein of the coat protein and the foreign protein are systematically produced in the plant;

Production of a Malarial B-cell epitope genetically fused to the surface loop region of the TMVCP. (Example 2)

Production of a Malarial B-cell epitope genetically fused to the C terminus of the TMVCP. (Example 3)

Production of a Malarial CTL epitope genetically fused to the C terminus of the TMVCP. (Example 4)

and  
(b) expressing the fusion protein systematically in the plant.

The recombinant plant viruses of the invention provide for systemic expression of the fusion protein, by systemically infecting cells in a plant. (page 4, line 37 through page 5, line 4)

### **PROPOSED COUNTS**

The following new count is proposed for the purpose of interference:

#### **PROPOSED COUNT 5**

A process for systemically expressing a fusion protein of a coat protein of a Tobamovirus and a foreign protein in a plant comprising the steps of:

- (a) inoculating a plant with a plant virus vector, such that upon expression of the vector in a plant, the coat protein of a Tobamovirus and the fusion protein of the coat protein and the foreign protein are systemically produced in the plant; and
- (b) expressing the fusion protein systemically in the plant.

Proposed Count 5 corresponds exactly to patent Claim 17 and Applicant's Claim 18.

**CLAIMS TO BE DESIGNATED  
AS CORRESPONDING TO THE COUNTS**

As noted in 37 C.F.R. § 1.606, all claims that “define the same patentable invention as the count shall be designated as corresponding to the count” and “any single patent claim will be presumed...not to contain separate patentable inventions.”

**PROPOSED COUNT 5**

Applicants’ Proposed Count 5 is identical to Claim 17 in U.S. Patent No. 5,618,699. Thus, Patent Claim 17 is designated as corresponding to proposed Count 5. Applicants reserve the rights to request other patent claims to be added as corresponding to proposed Count 5 in the later proceeding.

**COMPLIANCE WITH 37 C.F.R. § 1.607(a)**

This request for interference complies with the requirements of 37 C.F.R. § 1.607(a):

- (1) The patent is identified as U.S. Patent No. 5,618,699 to Hamamoto et al.;
- (2) Proposed Counts 4 and 5 have been presented;
- (3) Claims in the ‘699 Patent corresponding to each Proposed Count:
  - (a) Claim 16 in the ‘699 Patent should be designated as corresponding to Proposed Count 4;
  - (b) Claims 17, 22 and 23 in the ‘699 Patent should be designated as corresponding to Proposed Count 5.
- (4) Applicants’ claims corresponding to each Proposed Count:
  - (a) Applicants’ Claim 17 should be designated as corresponding to Proposed Count 4;
  - (b) Applicants’ Claim 18 should be designated as corresponding to Proposed Count 5.
- (5) Applicants have applied the terms of Claims 17 and 18 to the disclosure of the application.




- (6) The requirements of 35 U.S.C. 135(b) are met because at least one claim Applicants' (Claim 17) corresponding the proposed count was present in the application within one year of the issue date of the patent.

Applicants respectfully request that interference be expeditiously declared with U.S. Patent 5,618,699.

A showing under 37 C.F.R. § 1.608(b) is not required, because Applicants' effective filing date of October 14, 1994 antedates the date of November 30, 1994, which is the earliest date that could possibly be accorded to Hamamoto et al. Applicant does not concede that Hamamoto et al. are entitled to the filing date of November 30, 1994.

Respectfully submitted,

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Albert P. Halluin (Reg. No. 25,227)  
Viola T. Kung (Reg. No. 41,131)

**HOWREY SIMON ARNOLD & WHITE, LLP**  
301 Ravenswood Avenue  
Box 34  
Menlo Park, CA 94025  
Tel: (650) 463-8109  
Fax: (650) 463-8400